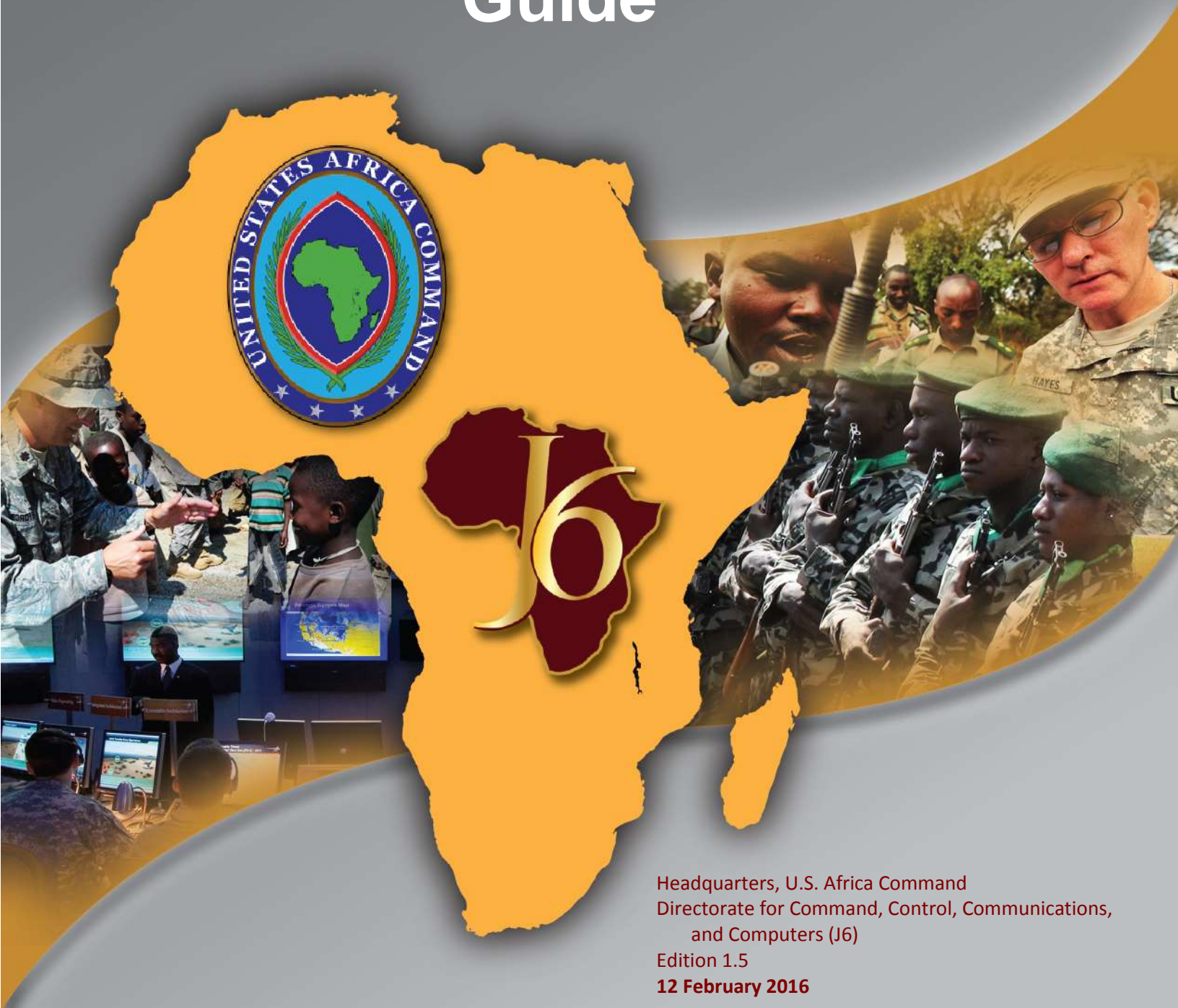# African Communications Quick Reference Guide

Headquarters, U.S. Africa Command
Directorate for Command, Control, Communications,
    and Computers (J6)
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Document Information

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0.1	4 Sep 14	J Yule	Initial draft.	
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1.3	27 Jan 15	J Yule	Changed title. Final approved version	
1.4	26 Jun 15	J Yule	First annual revision. Minor updates.	
1.5	12 Feb 16	J Yule	Added travel precautions in Africa	

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HEADQUARTERS
UNITED STATES AFRICA COMMAND
UNIT 29951
APO AE 09751-9951

ACJ6

27 January 2015

MEMORANDUM FOR USAFRICOM Staff

SUBJECT: African Communication Quick Reference Guide

1. This guide is published in order to assist USAFRICOM Staff traveling, or planning to travel, to Africa in understanding the telecommunications infrastructure and services available to them. While it specifically addresses users of USAFRICOM issued Blackberry devices and other cellular GSM equipped devices, it also serves to provide a general overview of telecommunications capabilities in each country.

2. African public telecommunications capabilities vary greatly across the continent, and I hope the information in this guide will enable Staff to plan their travel effectively.

PATRICK C. DEDHAM
COL, USA
Director, J6

Purpose

This document is intended to provide U.S. Africa Command staff a quick reference to communications capabilities on the continent of Africa. It includes general information on each country's communications infrastructure and maturity, along with information on a traveler's ability to use USAFRICOM provided communications devices (i.e., Blackberries and Laptops) in each country.

This reference will be expanded to include additional information as sources are found and information needs are identified. Users are invited, and encouraged, to make suggestions for improvement to:

> USAFRICOM Directorate for Command, Control, Communications, and Computers (J6)
> Attn: Strategy and Architecture Branch (J625)
> Unit 29951
> APO AE, 09751
>
> DSN: 314-421-3473
> Comm: 0049 711-729-3473
> john.w.yule.ctr@mail.mil or john.w.yule.ctr@mail.smil.mil

Information presented is current as of 24 June 2015 and is assumed to be free of bias.

How to Use Your GSM Device in Africa

Specific Information is provided for travelers with USAFRICOM issued GSM enabled devices (Blackberries and GSM enabled laptop computers). This information is taken from the T-Mobile web site and was current at the time it was collected, but a traveler should confirm the data for their destination before departure at https://www.t-mobile.de/roaming-laender/.

A sample entry is shown here:

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Djezzi	**Y**
Wataniya Telecom	**N**

Providers: Your T-Mobile GSM device is supported by these service providers in the country.

Data: Indicates whether data service is supported by the provider or not. If 'N' then only voice service is supported.

Help Numbers and Common Issues

Issue	TCO	119	T-Mobile
No outbound calls	X		X
No inbound calls	X		X
No data coverage	X		X
APN Error	X		X
Excess fee notification	X		X
DEE Email won't sync/update	X	X	
DEE account no longer displays	X	X	
Quarantine message in Hub (Blackberry 10 devices only)	X	X	
"Contact Administrator" message	X	X	
Cannot connect to server	X	X	

First point of contact for any issue should be your Directorate Telephone Control Officer (TCO).

USAFRICOM TCO: 0049 (0)711-729-4242 or email to africom.stuttgart.acj6.list.j6-tco@mail.mil

119 Help Desk: 0049 (0)631-411119

T-Mobile: 0049 (0)228-939-1069

Power and Plug Types

Power in Africa is generally 220V / 50 cycle, with the exception of Liberia which runs 110 V / 60 cycle. A wide range of power plugs are used across the continent. The chart below shows the power plugs and outlets you may encounter. Power and plug types are listed for each country, and in Table 1 at the back of this guide.

Type A	Type B	Type C

Type D	Type E	Type F

Type G	Type J	Type K

Type L	Type M	Type N

Security Tips While Travelling

Before travelling, limit or minimize any data taken to include removable media such as CDs, DVDs and USB drives. Don't take any electronic equipment you don't need during your travel. Consider use of a loaner cellphone or laptop to limit the loss of Government and personal information if the device is lost, stolen or confiscated by officials. Perform a full device back up and store in a secure location while you are away. Ensure your devices have the latest security patches, applications updates, and antivirus definitions. Use strong passwords on all devices. Check the latest travel advice at http://travel.state.gov, and complete the "Foreign Travel Questionnaire" on the USAFRICOM Portal (https://portal.usafricom.smil.mil/tools/ftq/ftq.aspx) if you are SCI cleared.

You must remember that the rules are different when travelling in a foreign country. You are subject to the local laws, not US or German law. Your device, whether personal or Government owned, may be subject to involuntary official governmental review, complete duplication, or possibly even confiscation.

Your personal privacy may not be respected abroad. Assume that even nominally private spaces are being monitored (i.e., hotel rooms, taxi cabs, rental cars, etc.). Also assume that anything you send or receive on your device will be intercepted!

Be careful how you use your mobile device.   Avoid open and free WiFi connections (airport, hotel, restaurants, etc.), and only turn on WiFi and Bluetooth when actually in use. Be wary of connecting to unknown networks. Turn off any automatic location/check-in applications or services. Power off devices when not in use. Do not use public charging stations! Assume that all CDs, DVDs, USB drives, email attachments, links, or other media are infected.

Keep physical control of your devices. Never leave your devices unattended or unsecure.   Put them away when not in use. If you have a laptop, use a cable lock. Avoid transporting devices in checked luggage when travelling. In certain areas, if you lose sight of your device, assume it has been compromised or a system image taken. Be aware of your surroundings when using any device.

When you return home, assume your devices and any media given you are 'dirty'.   Conduct a full scan of devices before connecting them to a trusted network. Contact your Work Group Administrator before reconnecting Government laptops to the network. Contact your Data Transfer Agent to scan all CDs, DVDs, USB drives, or other media received before introducing them to a trusted device. Change any passwords used during your trip. Monitor your devices for any unusual activities, or changes in settings (system, email, social media profiles, etc.). These may indicate your system, or your accounts, have been compromised. Report any and all suspicious activity on either your personal or government device to Command Security or the local Counterintelligence Office.

Algeria

Telephones – Main lines in use

> 3.2 million (2012)
> Country comparison to the world: 49

Telephones – mobile cellular

> 37.692 million (2012)
> Country comparison to the world: 32

Telephone systems

> **General assessment**: privatization of Algeria's telecommunications sector began in 2000; three mobile cellular licenses have been issued and, in 2005, a consortium led by Egypt's Orascom Telecom won a 15-year license to build and operate a fixed-line network in Algeria; the license will allow Orascom to develop high-speed data and other specialized services and contribute to meeting the large unfulfilled demand for basic residential telephony; Internet broadband services began in 2003

> **Domestic**: a limited network of fixed lines with a teledensity of less than 10 telephones per 100 persons has been offset by the rapid increase in mobile-cellular subscribership; in 2011, mobile-cellular teledensity was roughly 100 telephones per 100 persons

> **International:** country code - 213; landing point for the SEA-ME-WE-4 fiber-optic submarine cable system that provides links to Europe, the Middle East, and Asia; microwave radio relay to Italy, France, Spain, Morocco, and Tunisia; coaxial cable to Morocco and Tunisia; participant in Medarabtel; satellite earth stations - 51 (Intelsat, Intersputnik, and Arabsat) (2011)

Broadcast media: state-run Radio-Television Algerienne operates the broadcast media and carries programming in Arabic, Berber dialects, and French; use of satellite dishes is widespread, providing easy access to European and Arab satellite stations; state-run radio operates several national networks and roughly 40 regional radio stations (2007)

Internet country code: .dz

Internet hosts:

> 676 (2012)
> Country comparison to the world: 178

Internet users:

> 4.7 million (2009)
> Country comparison to the world: 49

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Algerie Telecom	N
Wataniya Telecom	Y

Power **Plug Type(s)**
230v/50 Hz C / F

Angola

Telephones – Main lines in use

> 303,000 (2012)
> Country comparison to the world: 116

Telephones – mobile cellular

> 9.8 million (2012)
> Country comparison to the world: 80

Telephone systems

> **General assessment**: limited system; state-owned telecom had monopoly for fixed-lines until 2005; demand outstripped capacity, prices were high, and services poor; Telecom Namibia, through an Angolan company, became the first private licensed operator in Angola's fixed-line telephone network; by 2010, the number of fixed-line providers had expanded to 5; Angola Telecom established mobile-cellular service in Luanda in 1993 and the network has been extended to larger towns; a privately owned, mobile-cellular service provider began operations in 2001

> **Domestic**: only about two fixed-lines per 100 persons; mobile-cellular teledensity about 50 telephones per 100 persons in 2011

> **International:** country code - 244; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; satellite earth stations - 29 (2009)

Broadcast media: state controls all broadcast media with nationwide reach; state-owned Televisao Popular de Angola (TPA) provides terrestrial TV service on 2 channels; a third TPA channel is available via cable and satellite; TV subscription services are available; state-owned Radio Nacional de Angola (RNA) broadcasts on 5 stations; about a half dozen private radio stations broadcast locally (2008)

Internet country code: .ao

Internet hosts:

> 20,703 (2012)
> Country comparison to the world: 116

Internet users:

> 606,700 (2009)
> Country comparison to the world: 114

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
UNITEL	Y

Power   **Plug Type(s)**
220v/50 Hz   C

Benin

Telephones - main lines in use:
> 156,700 (2012)
> Country comparison to the world: 134

Telephones - mobile cellular:
> 8.408 million (2012)
> Country comparison to the world: 90

Telephone system:
> **General assessment:** inadequate system of open-wire, microwave radio relay, and cellular connections; fixed-line network characterized by aging, deteriorating equipment
> **Domestic**: fixed-line teledensity only about 2 per 100 persons; spurred by the presence of multiple mobile-cellular providers, cellular telephone subscribership has been increasing rapidly
> **International**: country code - 229; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; long distance fiber-optic links with Togo, Burkina Faso, Niger, and Nigeria; satellite earth stations - 7 (Intelsat-Atlantic Ocean) (2008)

Broadcast media: State-run Office de Radiodiffusion et de Television du Benin (ORTB) operates a TV station with multiple channels giving it a wide broadcast reach; several privately owned TV stations broadcast from Cotonou; satellite TV subscription service is available; state-owned radio, under ORTB control, includes a national station supplemented by a number of regional stations; substantial number of privately owned radio broadcast stations; transmissions of a few international broadcasters are available on FM in Cotonou (2007)

Internet country code: .bj

Internet hosts:
> 491 (2012)
> Country comparison to the world: 183

Internet users:
> 200,100 (2009)
> Country comparison to the world: 139

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Etisalat	N

Power   **Plug Type(s)**
220v/50 Hz   C / E

Botswana

Telephones - main lines in use:

160,500 (2012)

Country comparison to the world: 133

Telephones - mobile cellular:

3.082 million (2012)

Country comparison to the world: 129

Telephone system:

General assessment: Botswana is participating in regional development efforts; expanding fully digital system with fiber-optic cables linking the major population centers in the east as well as a system of open-wire lines, microwave radio relays links, and radiotelephone communication stations

Domestic: fixed-line teledensity has declined in recent years and now stands at roughly 7 telephones per 100 persons; mobile-cellular teledensity now pushing 140 telephones per 100 persons

International: country code - 267; international calls are made via satellite, using international direct dialing; 2 international exchanges; digital microwave radio relay links to Namibia, Zambia, Zimbabwe, and South Africa; satellite earth station - 1 Intelsat (Indian Ocean) (2011)

Broadcast media: 2 TV stations - 1 state-owned and 1 privately owned; privately owned satellite TV subscription service is available; 2 state-owned national radio stations; 3 privately owned radio stations broadcast locally (2007)

Internet country code: .bw

Internet hosts:

1,806 (2012)

Country comparison to the world: 163

Internet users:

120,000 (2009)

Country comparison to the world: 150

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
BTC Mobile	Y

Power   **Plug Type(s)**
230v/50 Hz   D/G

Burkina Faso

Telephones - main lines in use:

      141,400 (2012)

      Country comparison to the world: 138

Telephones - mobile cellular:

      9.98 million (2012)

      Country comparison to the world: 79

Telephone system:

      General assessment: system includes microwave radio relay, open-wire, and radiotelephone communication stations; in 2006 the government sold a 51 percent stake in the national telephone company and ultimately plans to retain only a 23 percent stake in the company

      Domestic: fixed-line connections stand at less than 1 per 100 persons; mobile-cellular usage, fostered by multiple providers, is increasing rapidly from a low base

      International: country code - 226; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: 2 TV stations - 1 state-owned and 1 privately owned; state-owned radio runs a national and regional network; substantial number of privately owned radio stations; transmissions of several international broadcasters available in Ouagadougou (2007)

Internet country code: .bf

Internet hosts:

      1,795 (2012)

      Country comparison to the world: 164

Internet users:

      178,100 (2009)

      Country comparison to the world: 140

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Airtel	N
Telemob	N

Power   **Plug Type(s)**

220v/50 Hz   C / E

Burundi

Telephones - main lines in use:
>17,400 (2012)
>country comparison to the world: 191

Telephones - mobile cellular:
>2.247 million (2012)
>Country comparison to the world: 140

Telephone system:
>**General assessment:** sparse system of open-wire, radiotelephone communications, and low-capacity microwave radio relays
>**Domestic**: telephone density one of the lowest in the world; fixed-line connections stand at well less than 1 per 100 persons; mobile-cellular usage is increasing but remains at roughly 20 per 100 persons
>**International**: country code - 257; satellite earth station - 1 Intelsat (Indian Ocean) (2011)

Broadcast media: State-controlled La Radiodiffusion et Television Nationale de Burundi (RTNB) operates the lone TV station and the only national radio network; about 10 privately owned radio stations; transmissions of several international broadcasters are available in Bujumbura (2007)

Internet country code: .bi

Internet hosts:
>229 (2012)
>Country comparison to the world: 198

Internet users:
>157,800 (2009)
>Country comparison to the world: 143

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Africell Burundi	N
Econet Wireless Burundi	N

Power	Plug Type(s)
220v/50 Hz	C / E

Cameroon

Telephones - main lines in use:

> 737,400 (2012)
> Country comparison to the world: 88

Telephones - mobile cellular:

> 13.1 million (2012)
> Country comparison to the world: 64

Telephone system:

> **General assessment**: system includes cable, microwave radio relay, and tropospheric scatter; Camtel, the monopoly provider of fixed-line service, provides connections for only about 3 per 100 persons; equipment is old and outdated, and connections with many parts of the country are unreliable
> **Domestic**: mobile-cellular usage, in part a reflection of the poor condition and general inadequacy of the fixed-line network, has increased sharply, reaching a subscribership base of 50 per 100 persons
> **International**: country code - 237; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; satellite earth stations - 2 Intelsat (Atlantic Ocean) (2011)

Broadcast media: Government maintains tight control over broadcast media; state-owned Cameroon Radio Television (CRTV), broadcasting on both a TV and radio network, was the only officially recognized and fully licensed broadcaster until August 2007 when the government finally issued licenses to 2 private TV broadcasters and 1 private radio broadcaster; about 70 privately owned, unlicensed radio stations operating but are subject to closure at any time; foreign news services required to partner with state-owned national station (2007)

Internet country code: .cm

Internet hosts:

> 10,207 (2012)
> Country comparison to the world: 134

Internet users:

> 749,600 (2009)
> Country comparison to the world: 104

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
MTN	Y
Orange	N

Power　　　　**Plug Type(s)**
220v/50 Hz　　C / E

Cabo Verde (Cape Verde)

Telephones - main lines in use:

> 70,200 (2012)
>
> Country comparison to the world: 154

Telephones - mobile cellular:

> 425,300 (2012)
>
> Country comparison to the world: 171

Telephone system:

> **General assessment**: effective system, extensive modernization from 1996-2000 following partial privatization in 1995
>
> **Domestic**: major service provider is Cabo Verde Telecom (CVT); fiber-optic ring, completed in 2001, links all islands providing Internet access and ISDN services; cellular service introduced in 1998; broadband services launched in 2004
>
> **International**: country code - 238; landing point for the Atlantis-2 fiber-optic transatlantic telephone cable that provides links to South America, Senegal, and Europe; HF radiotelephone to Senegal and Guinea-Bissau; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: State-run TV and radio broadcast network plus a growing number of private broadcasters; Portuguese public TV and radio services for Africa are available; transmissions of a few international broadcasters are available (2007)

Internet country code: .cv

Internet hosts:

> 38 (2012)
>
> Country comparison to the world: 216

Internet users:

> 150,000 (2009)
>
> Country comparison to the world: 144

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
T+	**Y**
CVMovel	**Y**

Power   **Plug Type(s)**
230v/50 Hz   C / F

Central African Republic

Telephones - main lines in use:

5,600 (2012)

Country comparison to the world: 207

Telephones - mobile cellular:

1.07 million (2012)

Country comparison to the world: 157

Telephone system:

General assessment: network consists principally of microwave radio relay and low-capacity, low-powered radiotelephone communication

Domestic: limited telephone service with less than 1 fixed-line connection per 100 persons; spurred by the presence of multiple mobile-cellular service providers, cellular usage is increasing from a low base; most fixed-line and mobile-cellular telephone services are concentrated in Bangui

International: country code - 236; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: Government-owned network, Radiodiffusion Television Centrafricaine, provides domestic TV broadcasting; licenses for 2 private TV stations are pending; state-owned radio network is supplemented by a small number of privately owned broadcast stations as well as a few community radio stations; transmissions of at least 2 international broadcasters are available (2007)

Internet country code: .cf

Internet hosts:

20 (2012)

Country comparison to the world: 221

Internet users:

22,600 (2009)

Country comparison to the world: 188

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Orange	N

Power   **Plug Type(s)**
220v/50 Hz   C / E

Chad

Telephones - main lines in use:
29,900 (2012)
Country comparison to the world: 175

Telephones - mobile cellular:
4.2 million (2012)
Country comparison to the world: 119

Telephone system:
General assessment: inadequate system of radiotelephone communication stations with high costs and low telephone density
Domestic: fixed-line connections for less than 1 per 100 persons coupled with mobile-cellular subscribership base of only about 35 per 100 persons
International: country code - 235; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: 1 state-owned TV station; state-owned radio network, Radiodiffusion Nationale Tchadienne (RNT), operates national and regional stations; about 10 private radio stations; some stations rebroadcast programs from international broadcasters (2007)

Internet country code: .td

Internet hosts:
6 (2012)
Country comparison to the world: 229

Internet users:
168,100 (2009)
Country comparison to the world: 141

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Millicom	Y
Zain	Y

Power   **Plug Type(s)**
220v/50 Hz   C / D / E / F

Comoros

Telephones - main lines in use:

24,000 (2012)

Country comparison to the world: 180

Telephones - mobile cellular:

250,000 (2012)

Country comparison to the world: 177

Telephone system:

General assessment: sparse system of microwave radio relay and HF radiotelephone communication stations

Domestic: fixed-line connections only about 3 per 100 persons; mobile cellular usage about 30 per 100 persons

International: country code - 269; landing point for the EASSy fiber-optic submarine cable system connecting East Africa with Europe and North America; HF radiotelephone communications to Madagascar and Reunion (2010)

Broadcast media: National state-owned TV station and a TV station run by Anjouan regional government; national state-owned radio; regional governments on the islands of Grande Comore and Anjouan each operate a radio station; a few independent and small community radio stations operate on the islands of Grande Comore and Moheli, and these two islands have access to Mayotte Radio and French TV (2007)

Internet country code: .km

Internet hosts:

14 (2012)

Country comparison to the world: 225

Internet users:

24,300 (2009)

Country comparison to the world: 183

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Comores Telecom	**N**

Power   **Plug Type(s)**

220v/50 Hz   C / E

Congo, Democratic Republic of the

Telephones - main lines in use:

      58,200 (2012)

      Country comparison to the world: 160

Telephones - mobile cellular:

      19.487 million (2012)

      Country comparison to the world: 52

Telephone system:

      General assessment: barely adequate wire and microwave radio relay service in and between urban areas; domestic satellite system with 14 earth stations; inadequate fixed line infrastructure

      Domestic: state-owned operator providing less than 1 fixed-line connection per 100 persons; given the backdrop of a wholly inadequate fixed-line infrastructure, the use of mobile-cellular services has surged and mobile teledensity is roughly 20 per 100 persons

      International: country code - 243; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: State-owned TV broadcast station with near national coverage; more than a dozen privately owned TV stations with 2 having near national coverage; 2 state-owned radio stations are supplemented by more than 100 private radio stations; transmissions of at least 2 international broadcasters are available (2007)

Internet country code: .cd

Internet hosts:

      2,515 (2012)

      Country comparison to the world: 159

Internet users:

      290,000 (2008)

      Country comparison to the world: 129

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Celtel (Zain)	Y
Congo-China Telecom	N

Power	Plug Type(s)
220v/50 Hz	C / D / E

Congo, Republic of the

Telephones - main lines in use:

14,900 (2012)

Country comparison to the world: 193

Telephones - mobile cellular:

4.283 million (2012)

Country comparison to the world: 118

Telephone system:

General assessment: primary network consists of microwave radio relay and coaxial cable with services barely adequate for government use; key exchanges are in Brazzaville, Pointe-Noire, and Loubomo; intercity lines frequently out of order

Domestic: fixed-line infrastructure inadequate providing less than 1 connection per 100 persons; in the absence of an adequate fixed line infrastructure, mobile-cellular subscribership has surged to 90 per 100 persons

International: country code - 242; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: 1 state-owned TV and 3 state-owned radio stations; several privately owned TV and radio stations; satellite TV service is available; rebroadcasts of several international broadcasters are available (2007)

Internet country code: .cg

Internet hosts:

45 (2012)

Country comparison to the world: 215

Internet users:

245,200 (2009)

Country comparison to the world: 133

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
MTN	Y

Power   **Plug Type(s)**

230v/50 Hz   C / E

Cote d'Ivoire

Telephones - main lines in use:

268,000 (2012)

Country comparison to the world: 121

Telephones - mobile cellular:

19.827 million (2012)

Country comparison to the world: 49

Telephone system:

General assessment: well-developed by African standards; telecommunications sector privatized in late 1990s and operational fixed-lines have increased since that time with two fixed-line providers operating over open-wire lines, microwave radio relay, and fiber-optics; 90% digitalized

Domestic: with multiple mobile-cellular service providers competing in the market, usage has increased sharply to roughly 80 per 100 persons

International: country code - 225; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; satellite earth stations - 2 Intelsat (1 Atlantic Ocean and 1 Indian Ocean) (2011)

Broadcast media: 2 state-owned TV stations; no private terrestrial TV stations, but satellite TV subscription service is available; 2 state-owned radio stations; some private radio stations; transmissions of several international broadcasters are available (2007)

Internet country code: .ci

Internet hosts:

9,115 (2012)

Country comparison to the world: 137

Internet users:

967,300 (2009)

Country comparison to the world: 101

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Atlantique Cellulaire	Y
Orange	Y

Power **Plug Type(s)**

220v/50 Hz C / E

Djibouti

Telephones - main lines in use:

18,000 (2012)

Country comparison to the world: 190

Telephones - mobile cellular:

209,000 (2012)

Country comparison to the world: 181

Telephone system:

General assessment: telephone facilities in the city of Djibouti are adequate, as are the microwave radio relay connections to outlying areas of the country

Domestic: Djibouti Telecom is the sole provider of telecommunications services and utilizes mostly a microwave radio relay network; fiber-optic cable is installed in the capital; rural areas connected via wireless local loop radio systems; mobile cellular coverage is primarily limited to the area in and around Djibouti city

International: country code - 253; landing point for the SEA-ME-WE-3 and EASSy fiber-optic submarine cable systems providing links to Asia, the Middle East, Europe and North America; satellite earth stations - 2 (1 Intelsat - Indian Ocean and 1 Arabsat); Medarabtel regional microwave radio relay telephone network (2009)

Broadcast media: State-owned Radiodiffusion-Television de Djibouti (RTD) operates the sole terrestrial TV station as well as the only 2 domestic radio networks; no private TV or radio stations; transmissions of several international broadcasters are available (2007)

Internet country code: .dj

Internet hosts:

215 (2012)

Country comparison to the world: 200

Internet users:

25,900 (2009)

Country comparison to the world: 181

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Djibouti Telecom	N

Power   **Plug Type(s)**
220v/50 Hz   C / E

Equatorial Guinea

Telephones - main lines in use:
> 14,900 (2012)
> Country comparison to the world: 194

Telephones - mobile cellular:
> 501,000 (2012)
> Country comparison to the world: 169

Telephone system:
> **General assessment:** digital fixed-line network in most major urban areas and good mobile
coverage
> **Domestic**: fixed-line density is about 2 per 100 persons; mobile-cellular subscribership has been
increasing and in 2011 stood at about 60 percent of the population
> **International**: country code - 240; international communications from Bata and Malabo to
African and European countries; satellite earth station - 1 Intelsat (Indian Ocean) (2011)

Broadcast media: State maintains control of broadcast media with domestic broadcast media limited
to 1 state-owned TV station, 1 private TV station owned by the president's eldest son, 1 state-owned
radio station, and 1 private radio station owned by the president's eldest son; satellite TV service is
available; transmissions of multiple international broadcasters are accessible (2013)

Internet country code: .gq

Internet hosts:
> 7 (2012)
> Country comparison to the world: 227

Internet users:
> 14,400 (2009)
> Country comparison to the world: 196

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Orange	N
Hits Ecuatorial Guinea	Y

Power   **Plug Type(s)**
220v/50 Hz   C / E

Eritrea

Telephones - main lines in use:

 60,000 (2012)

Country comparison to the world: 159

Telephones - mobile cellular:

305,300 (2012)

Country comparison to the world: 174

Telephone system:

General assessment: inadequate; most fixed-line telephones are in Asmara; government is seeking international tenders to improve the system; cell phones in increasing use throughout the country

Domestic: combined fixed-line and mobile-cellular subscribership is less than 5 per 100 persons

International: country code - 291 (2011)

Broadcast media: Government controls broadcast media with private ownership prohibited; 1 state-owned TV station; state-owned radio operates 2 networks; purchases of satellite dishes and subscriptions to international broadcast media are permitted (2007)

Internet country code: .er

Internet hosts:

701 (2012)

Country comparison to the world: 177

Internet users:

200,000 (2008)

Country comparison to the world: 136

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
-	-

Power   **Plug Type(s)**

230v/50 Hz   C / L

Ethiopia

Telephones - main lines in use:
>797,500 (2012)
>Country comparison to the world: 86

Telephones - mobile cellular:
>20.524 million (2012)
>Country comparison to the world: 47

Telephone system:
>**General assessment:** inadequate telephone system with the Ethio Telecom maintaining a monopoly over telecommunication services; open-wire, microwave radio relay; radio communication in the HF, VHF, and UHF frequencies; 2 domestic satellites provide the national trunk service
>**Domestic:** the number of fixed lines and mobile telephones is increasing from a small base; combined fixed and mobile-cellular teledensity is roughly 15 per 100 persons
>**International**: country code - 251; open-wire to Sudan and Djibouti; microwave radio relay to Kenya and Djibouti; satellite earth stations - 3 Intelsat (1 Atlantic Ocean and 2 Pacific Ocean) (2011)

Broadcast media: 1 public TV station broadcasting nationally and 1 public radio broadcaster with stations in each of the 13 administrative districts; a few commercial radio stations and roughly a dozen community radio stations (2009)

Internet country code: .et

Internet hosts:
>179 (2012)
>Country comparison to the world: 203

Internet users:
>447,300 (2009)
>Country comparison to the world: 116

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
ETMTN	Y

Power   **Plug Type(s)**
220v/50 Hz   C / F

Gabon

Telephones - main lines in use:

17,000 (2012)

Country comparison to the world: 192

Telephones - mobile cellular:

2.93 million (2012)

Country comparison to the world: 133

Telephone system:

General assessment: adequate system of cable, microwave radio relay, tropospheric scatter, radiotelephone communication stations, and a domestic satellite system with 12 earth stations

Domestic: a growing mobile-cellular network with multiple providers is making telephone service more widely available with mobile-cellular teledensity exceeding 100 per 100 persons

International: country code - 241; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; satellite earth stations - 3 Intelsat (Atlantic Ocean) (2011)

Broadcast media: State owns and operates 2 TV stations and 2 radio broadcast stations; a few private radio and TV stations; transmissions of at least 2 international broadcasters are accessible; satellite service subscriptions are available (2007)

Internet country code: .ga

Internet hosts:

127 (2012)

Country comparison to the world: 205

Internet users:

98,800 (2009)

Country comparison to the world: 156

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Telecel Gabon	N
Zain	Y
Azur Gabon	N

Power   **Plug Type(s)**

220v/50 Hz   C

Gambia, The

Telephones - main lines in use:
> 64,200 (2012)
> Country comparison to the world: 158

Telephones - mobile cellular:
> 1.526 million (2012)
> Country comparison to the world: 151

Telephone system:
> **General assessment**: adequate microwave radio relay and open-wire network; state-owned Gambia Telecommunications partially privatized in 2007
> **Domestic**: combined fixed-line and mobile-cellular teledensity, aided by multiple mobile-cellular providers, is roughly 80 per 100 persons
> **International**: country code - 220; microwave radio relay links to Senegal and Guinea-Bissau; a landing station for the Africa Coast to Europe (ACE) undersea fiber-optic cable is scheduled for completion in 2011; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: State-owned, single-channel TV service; state-owned radio station and 4 privately owned radio stations; transmissions of multiple international broadcasters are available, some via shortwave radio; cable and satellite TV subscription services are obtainable in some parts of the country (2007)

Internet country code: .gm

Internet hosts:
> 656 (2012)
> Country comparison to the world: 179

Internet users:
> 130,100 (2009)
> Country comparison to the world: 146

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Comium	N
Africell	N

Power   **Plug Type(s)**
230v/50 Hz   G

Ghana

Telephones - main lines in use:

285,000 (2012)

Country comparison to the world: 120

Telephones - mobile cellular:

25.618 million (2012)

Country comparison to the world: 42

Telephone system:

General assessment: primarily microwave radio relay; wireless local loop has been installed; outdated and unreliable fixed-line infrastructure heavily concentrated in Accra

Domestic: competition among multiple mobile-cellular providers has spurred growth with a subscribership of more than 80 per 100 persons and rising

International: country code - 233; landing point for the SAT-3/WASC, Main One, and GLO-1 fiber-optic submarine cables that provide connectivity to South Africa, Europe, and Asia; satellite earth stations - 4 Intelsat (Atlantic Ocean); microwave radio relay link to Panaftel system connects Ghana to its neighbors (2009)

Broadcast media: State-owned TV station, 2 state-owned radio networks; several privately owned TV stations and a large number of privately owned radio stations; transmissions of multiple international broadcasters are accessible; several cable and satellite TV subscription services are obtainable (2007)

Internet country code: .gh

Internet hosts:

59,086 (2012)

Country comparison to the world: 93

Internet users:

 1.297 million (2009)

Country comparison to the world: 91

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Tigo (Millicom)	Y
MTN (Scancom)	Y
Glo Mobile	Y

Power   **Plug Type(s)**
230v/50 Hz   D / G

Guinea

Telephones - main lines in use:

18,000 (2012)

Country comparison to the world: 188

Telephones - mobile cellular:

4.781 million (2012)

Country comparison to the world: 115

Telephone system:

General assessment: inadequate system of open-wire lines, small radiotelephone communication stations, and new microwave radio relay system

Domestic: Conakry reasonably well-served; coverage elsewhere remains inadequate and large companies tend to rely on their own systems for nationwide links; fixed-line teledensity less than 1 per 100 persons; mobile-cellular subscribership is expanding and exceeds 40 per 100 persons

International: country code - 224; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: Government maintains marginal control over broadcast media; single state-run TV station; state-run radio broadcast station also operates several stations in rural areas; a steadily increasing number of privately owned radio stations, nearly all in Conakry, and about a dozen community radio stations; foreign TV programming available via satellite and cable subscription services (2011)

Internet country code: .gn

Internet hosts:

15 (2012)

Country comparison to the world: 223

Internet users:

95,000 (2009)

Country comparison to the world: 157

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Orange Guinea	**N**
Areeba Guinee	**Y**

Power   **Plug Type(s)**

220v/50 Hz   C / F / K

Guinea-Bissau

Telephones - main lines in use:

     5,000 (2012)

     Country comparison to the world: 208

Telephones - mobile cellular:

     1.1 million (2012)

     Country comparison to the world: 156

Telephone system:

     General assessment: small system including a combination of microwave radio relay, open-wire lines, radiotelephone, and mobile-cellular communications

     Domestic: fixed-line teledensity less than 1 per 100 persons; mobile-cellular teledensity is roughly 50 per 100 persons

     International: country code - 245 (2011)

Broadcast media: 1 state-owned TV station and a second station, Radio e Televisao de Portugal (RTP) Africa, is operated by Portuguese public broadcaster (RTP); 1 state-owned radio station, several private radio stations, and some community radio stations; multiple international broadcasters are available (2007)

Internet country code: .gw

Internet hosts:

     90 (2012)

     Country comparison to the world: 211

Internet users:

     37,100 (2009)

     Country comparison to the world: 173

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
MTN	**N**

Power   **Plug Type(s)**

220v/50 Hz   C

Kenya

Telephones - main lines in use:
>251,600 (2012)
>Country comparison to the world: 123

Telephones - mobile cellular:
>30.732 million (2012)
>Country comparison to the world: 33

Telephone system:
>**General assessment**: inadequate; fixed-line telephone system is small and inefficient; trunks are primarily microwave radio relay; business data commonly transferred by a very small aperture terminal (VSAT) system
>**Domestic**: sole fixed-line provider, Telkom Kenya, is slated for privatization; multiple providers in the mobile-cellular segment of the market fostering a boom in mobile-cellular telephone usage with teledensity reaching 65 per 100 persons in 2011
>**International**: country code - 254; landing point for the EASSy, TEAMS and SEACOM fiber-optic submarine cable systems; satellite earth stations - 4 Intelsat (2011)

Broadcast media: About a half-dozen large-scale privately owned media companies with TV and radio stations as well as a state-owned TV broadcaster provide service nation-wide; satellite and cable TV subscription services available; state-owned radio broadcaster operates 2 national radio channels and provides regional and local radio services in multiple languages; a large number of private radio stations broadcast on a national level along with over 100 private and non-profit provincial stations broadcasting in local languages; transmissions of several international broadcasters available (2014)

Internet country code: .ke

Internet hosts:
>71,018 (2012)
>Country comparison to the world: 88

Internet users:
>3.996 million (2009)
>Country comparison to the world: 57

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Airtel	Y
Safaricom Limited	Y

Power   **Plug Type(s)**
240v/50 Hz   G

Lesotho

Telephones - main lines in use:

43,100 (2012)

Country comparison to the world: 167

Telephones - mobile cellular:

1.312 million (2012)

Country comparison to the world: 153

Telephone system:

General assessment: rudimentary system consisting of a modest number of landlines, a small microwave radio relay system, and a small radiotelephone communication system; mobile-cellular telephone system is expanding

Domestic: privatized in 2001, Telecom Lesotho was tasked with providing an additional 50,000 fixed-line connections within five years, a target not met; mobile-cellular service dominates the market and is expanding with a subscribership roughly 65 per 100 persons in 2011; rural services are scant

International: country code - 266; satellite earth station - 1 Intelsat (Atlantic Ocean) (2011)

Broadcast media: 1 state-owned TV station and 2 state-owned radio stations; government controls most private broadcast media; satellite TV subscription service available; transmissions of multiple international broadcasters obtainable (2008)

Internet country code: .ls

Internet hosts:

11,030 (2012)

Country comparison to the world: 131

Internet users:

76,800 (2009)

Country comparison to the world: 164

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Vodacom Lesotho	**N**

Power   **Plug Type(s)**
220v/50 Hz   M

Liberia

Telephones - main lines in use:

>3,200 (2011)

>Country comparison to the world: 211

Telephones - mobile cellular:

>2.394 million (2012)

>Country comparison to the world: 138

Telephone system:

>**General assessment**: the limited services available are found almost exclusively in the capital Monrovia; fixed-line service stagnant and extremely limited; telephone coverage extended to a number of other towns and rural areas by four mobile-cellular network operators

>**Domestic**: mobile-cellular subscription base growing and teledensity reached 50 per 100 persons in 2011

>**International**: country code - 231; satellite earth station - 1 Intelsat (Atlantic Ocean) (2010)

Broadcast media: 3 private TV stations; satellite TV service available; 1 state-owned radio station; about 15 independent radio stations broadcasting in Monrovia, with another 25 local stations operating in other areas; transmissions of 2 international broadcasters are available (2007)

Internet country code: .lr

Internet hosts:

>7 (2012)

>Country comparison to the world: 228

Internet users:

>20,000 (2009)

>Country comparison to the world: 190

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Comium	**N**

Power	Plug Type(s)
120v/60 Hz	A / B

Libya

Telephones - main lines in use:

      814,000 (2012)

      Country comparison to the world: 85

Telephones - mobile cellular:

      9.59 million (2012)

      Country comparison to the world: 81

Telephone system:

      General assessment: telecommunications system is state-owned and service is poor, but investment is being made to upgrade; state retains monopoly in fixed-line services; mobile-cellular telephone system became operational in 1996

      Domestic: multiple providers for a mobile telephone system that is growing rapidly; combined fixed-line and mobile-cellular teledensity has soared

      International: country code - 218; satellite earth stations - 4 Intelsat, NA Arabsat, and NA Intersputnik; submarine cable to France and Italy; microwave radio relay to Tunisia and Egypt; tropospheric scatter to Greece; participant in Medarabtel (2010)

Broadcast media: State-funded and private TV stations; some provinces operate local TV stations; pan-Arab satellite TV stations are available; state-funded radio (2012)

Internet country code: .ly

Internet hosts:

      17,926 (2012)

      Country comparison to the world: 121

Internet users:

      353,900 (2009)

      Country comparison to the world: 121

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Al Madar	Y

Power   **Plug Type(s)**

230v/50 Hz   C / L

Madagascar

Telephones - main lines in use:
> 143,700 (2012)
> Country comparison to the world: 137

Telephones - mobile cellular:
> 8.564 million (2012)
> Country comparison to the world: 89

Telephone system:
> **General assessment**: system is above average for the region; Antananarivo's main telephone exchange modernized in the late 1990s, but the rest of the analogue-based telephone system is poorly developed
> **Domestic**: combined fixed-line and mobile-cellular teledensity about 40 per 100 persons
> **International**: country code - 261; landing point for the EASSy, SEACOM, and LION fiber-optic submarine cable systems; satellite earth stations - 2 (1 Intelsat - Indian Ocean, 1 Intersputnik - Atlantic Ocean region) (2010)

Broadcast media: State-owned Radio Nationale Malagasy (RNM) and Television Malagasy (TVM) have an extensive national network reach; privately owned radio and TV broadcasters in cities and major towns; state-run radio dominates in rural areas; relays of 2 international broadcasters are available in Antananarivo (2007)

Internet country code: .mg

Internet hosts:
> 38,392 (2012)
> Country comparison to the world: 102

Internet users:
> 319,900 (2009)
> Country comparison to the world: 124

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Orange	N
Zain	Y
Telma Mobile	Y

Power   **Plug Type(s)**
220v/50 Hz   C / E

Malawi

Telephones - main lines in use:
227,300 (2012)
Country comparison to the world: 125

Telephones - mobile cellular:
4.42 million (2012)
Country comparison to the world: 117

Telephone system:
General assessment: rudimentary; privatization of Malawi Telecommunications (MTL), a necessary step in bringing improvement to telecommunications services, completed in 2006
Domestic: limited fixed-line subscribership of about 1 per 100 persons; mobile-cellular services are expanding but network coverage is limited and is based around the main urban areas; mobile-cellular subscribership about 25 per 100 persons
International: country code - 265; satellite earth stations - 2 Intelsat (1 Indian Ocean, 1 Atlantic Ocean) (2010)

Broadcast media: radio is the main broadcast medium; privately-owned Zodiac radio has the widest national broadcasting reach, followed by state-run radio; about a dozen private and community radio stations broadcast in cities and towns around the country; the largest TV network is government-owned, but two private TV networks now broadcast in urban areas and more plan to begin broadcasting in 2014; relays of multiple international broadcasters are available (2014)

Internet country code: .mw

Internet hosts:
1,099 (2012)
Country comparison to the world: 171

Internet users:
716,400 (2009)
Country comparison to the world: 107

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Telekom Net.	Y

Power **Plug Type(s)**
230v/50 Hz   G

Mali

Telephones - main lines in use:
>112,000 (2012)
>Country comparison to the world: 141

Telephones - mobile cellular:
>14.613 million (2012)
>Country comparison to the world: 59

Telephone system:
>**General assessment**: domestic system unreliable but improving; increasing use of local radio loops to extend network coverage to remote areas
>**Domestic**: fixed-line subscribership remains less than 1 per 100 persons; mobile-cellular subscribership has increased sharply to about 70 per 100 persons
>**International**: country code - 223; satellite communications center and fiber-optic links to neighboring countries; satellite earth stations - 2 Intelsat (1 Atlantic Ocean, 1 Indian Ocean) (2010)

Broadcast media: National public TV broadcaster; 2 privately owned companies provide subscription services to foreign multi-channel TV packages; national public radio broadcaster supplemented by a large number of privately owned and community broadcast stations; transmissions of multiple international broadcasters are available (2007)

Internet country code: .ml

Internet hosts:
>437 (2012)
>Country comparison to the world: 186

Internet users:
>249,800 (2009)
>Country comparison to the world: 132

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Orange	Y

Power　　　　**Plug Type(s)**
220v/50 Hz　　　C / E

Mauritania

Telephones - main lines in use:

65,100 (2012)

Country comparison to the world: 157

Telephones - mobile cellular:

4.024 million (2012)

Country comparison to the world: 121

Telephone system:

General assessment: limited system of cable and open-wire lines, minor microwave radio relay links, and radiotelephone communications stations; mobile-cellular services expanding rapidly

Domestic: Mauritel, the national telecommunications company, was privatized in 2001 but remains the monopoly provider of fixed-line services; fixed-line teledensity 2 per 100 persons; mobile-cellular network coverage extends mainly to urban areas with a teledensity of roughly 106 per 100 persons; mostly cable and open-wire lines; a domestic satellite telecommunications system links Nouakchott with regional capitals

International: country code - 222; satellite earth stations - 3 (1 Intelsat - Atlantic Ocean, 2 Arabsat); fiber-optic and Asymmetric Digital Subscriber Line (ADSL) cables for Internet access (2009)

Broadcast media: One state-run TV (Television de Mauritanie) and one state-run radio network (Radio de Mauritanie); Television de Mauritanie has three channels, Al Mahadra station (for Islamic content) and Channels 1 and 2, which cover news, sports, and other programming; Radio de Mauritanie runs 12 regional stations as well as a radio station for youth and the Holy Quran station; five private TV channels and five private radio stations also broadcast from Mauritania; six private international radio stations broadcast in Mauritania on the FM band; with satellite connections, Mauritanians also have access to hundreds of foreign TV channels (2013)

Internet country code: .mr

Internet hosts:

22 (2012)

Country comparison to the world: 220

Internet users:

75,000 (2009)

Country comparison to the world: 166

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
MATTEL	Y

Power   **Plug Type(s)**

220v/50 Hz   C

Mauritius

Telephones - main lines in use:
>349,100 (2012)
>Country comparison to the world: 109

Telephones - mobile cellular:
>1.485 million (2012)
>Country comparison to the world: 152

Telephone system:
>**General assessment**: small system with good service
>**Domestic**: monopoly over fixed-line services terminated in 2005; fixed-line teledensity roughly 30 per 100 persons; mobile-cellular services launched in 1989 with current teledensity roughly 100 per 100 persons
>**International**: country code - 230; landing point for the SAFE submarine cable that provides links to Asia and South Africa where it connects to the SAT-3/WASC submarine cable that provides further links to parts of East Africa, and Europe; satellite earth station - 1 Intelsat (Indian Ocean); new microwave link to Reunion; HF radiotelephone links to several countries (2011)

Broadcast media: The government maintains control over TV broadcasting through the Mauritius Broadcasting Corporation (MBC), which operates 3 analog and 10 digital TV stations; MBC is a shareholder in a local company that operates 2 pay-TV stations; the state retains the largest radio broadcast network with multiple stations; several private radio broadcasters have entered the market since 2001; transmissions of at least 2 international broadcasters are available (2007)

Internet country code: .mu

Internet hosts:
>51,139 (2012)
>Country comparison to the world: 95

Internet users:
>290,000 (2009)
>Country comparison to the world: 128

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Mahanagar Telephone	Y
Emtel	Y

Power   **Plug Type(s)**
230v/50 Hz   C / G

Morocco

Telephones - main lines in use:

   3.28 million (2012)

   Country comparison to the world: 47

Telephones - mobile cellular:

   39.016 million (2012)

   Country comparison to the world: 31

Telephone system:

   General assessment: good system composed of open-wire lines, cables, and microwave radio relay links; principal switching centers are Casablanca and Rabat; national network nearly 100% digital using fiber-optic links; improved rural service employs microwave radio relay; Internet available but expensive

   Domestic: fixed-line teledensity is roughly 10 per 100 persons; mobile-cellular subscribership exceeds 100 per 100 persons

   International: country code - 212; landing point for the Atlas Offshore, Estepona-Tetouan, Euroafrica, Spain-Morocco, and SEA-ME-WE-3 fiber-optic telecommunications undersea cables that provide connectivity to Asia, the Middle East, and Europe; satellite earth stations - 2 Intelsat (Atlantic Ocean) and 1 Arabsat; microwave radio relay to Gibraltar, Spain, and Western Sahara; coaxial cable and microwave radio relay to Algeria; participant in Medarabtel; fiber-optic cable link from Agadir to Algeria and Tunisia (2011)

Broadcast media: 2 TV broadcast networks with state-run Radio-Television Marocaine (RTM) operating one network and the state partially owning the other; foreign TV broadcasts are available via satellite dish; 3 radio broadcast networks with RTM operating one; the government-owned network includes 10 regional radio channels in addition to its national service (2007)

Internet country code: .ma

Internet hosts:

   277,338 (2012)

   Country comparison to the world: 66

Internet users:

   13.213 million (2009)

   Country comparison to the world: 28

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Wana Corporate	Y
IAM	Y

Power   **Plug Type(s)**
220v/50 Hz   C / E

Mozambique

Telephones - main lines in use:
>88,100 (2012)
>Country comparison to the world: 147

Telephones - mobile cellular:
>8.108 million (2012)
>Country comparison to the world: 91

Telephone system:
>**General assessment**: a fair telecommunications system that is shackled with a heavy state presence, lack of competition, and high operating costs and charges
>**Domestic**: stagnation in the fixed-line network contrasts with rapid growth in the mobile-cellular network; mobile-cellular coverage now includes all the main cities and key roads, including those from Maputo to the South African and Swaziland borders, the national highway through Gaza and Inhambane provinces, the Beira corridor, and from Nampula to Nacala; extremely low fixed-line teledensity; despite significant growth in mobile-cellular services, teledensity remains low at about 35 per 100 persons
>**International**: country code - 258; landing point for the EASSy and SEACOM fiber-optic submarine cable systems; satellite earth stations - 5 Intelsat (2 Atlantic Ocean and 3 Indian Ocean) (2011)

Broadcast media: 1 state-run TV station supplemented by private TV station; Portuguese state TV's African service, RTP Africa, and Brazilian-owned TV Miramar are available; state-run radio provides nearly 100% territorial coverage and broadcasts in multiple languages; a number of privately owned and community-operated stations; transmissions of multiple international broadcasters are available (2007)

Internet country code: .mz

Internet hosts:
>89,737 (2012)
>Country comparison to the world: 82

Internet users:
>613,600 (2009)
>Country comparison to the world: 111

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Vodacom Mozambique	N
Mozambique Celular	Y

Power   **Plug Type(s)**
220v/50 Hz   C / F / M

Namibia

Telephones - main lines in use:

171,000 (2012)

Country comparison to the world: 129

Telephones - mobile cellular:

2.435 million (2012)

Country comparison to the world: 137

Telephone system:

General assessment: good system; core fiber-optic network links most centers and connections are now digital

Domestic: multiple mobile-cellular providers with a combined subscribership of more than 100 telephones per 100 persons

International: country code - 264; fiber-optic cable to South Africa, microwave radio relay link to Botswana, direct links to other neighboring countries; connected to the South African Far East (SAFE) submarine cable through South Africa; satellite earth stations - 4 Intelsat (2010)

Broadcast media: 1 private and 1 state-run TV station; satellite and cable TV service is available; state-run radio service broadcasts in multiple languages; about a dozen private radio stations; transmissions of multiple international broadcasters are available (2007)

Internet country code: .na

Internet hosts:

78,280 (2012)

Country comparison to the world: 84

Internet users:

127,500 (2009)

Country comparison to the world: 147

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Cell One	Y
MTC	Y

Power   **Plug Type(s)**

220v/50 Hz   D / M

Niger

Telephones - main lines in use:

100,500 (2012)

Country comparison to the world: 144

Telephones - mobile cellular:

5.4 million (2012)

Country comparison to the world: 107

Telephone system:

General assessment: inadequate; small system of wire, radio telephone communications, and microwave radio relay links concentrated in the southwestern area of Niger

Domestic: combined fixed-line and mobile-cellular teledensity remains only about 30 per 100 persons despite a rapidly increasing cellular subscribership base; domestic satellite system with 3 earth stations and 1 planned

International: country code - 227; satellite earth stations - 2 Intelsat (1 Atlantic Ocean and 1 Indian Ocean) (2010)

Broadcast media: State-run TV station; 3 private TV stations provide a mix of local and foreign programming; state-run radio has only radio station with a national reach; about 30 private radio stations operate locally; as many as 100 community radio stations broadcast; transmissions of multiple international broadcasters are available (2007)

Internet country code: .ne

Internet hosts:

454 (2012)

Country comparison to the world: 185

Internet users:

115,900 (2009)

Country comparison to the world: 151

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Telecel Niger	Y

Power | **Plug Type(s)**
220v/50 Hz | C / D / E / F

Nigeria

Telephones - main lines in use:
> 418,200 (2012)
> Country comparison to the world: 102

Telephones - mobile cellular:
> 112.78 million (2012)
> Country comparison to the world: 10

Telephone system:
> **General assessment**: further expansion and modernization of the fixed-line telephone network is needed; network quality remains a problem
> **Domestic**: the addition of a second fixed-line provider in 2002 resulted in faster growth but subscribership remains only about 1 per 100 persons; mobile-cellular services growing rapidly, in part responding to the shortcomings of the fixed-line network; multiple cellular providers operate nationally with subscribership base approaching 60 per 100 persons
> **International**: country code - 234; landing point for the SAT-3/WASC fiber-optic submarine cable that provides connectivity to Europe and Asia; satellite earth stations - 3 Intelsat (2 Atlantic Ocean and 1 Indian Ocean) (2010)

Broadcast media: Nearly 70 federal government-controlled national and regional TV stations; all 36 states operate TV stations; several private TV stations operational; cable and satellite TV subscription services are available; network of federal government-controlled national, regional, and state radio stations; roughly 40 state government-owned radio stations typically carry their own programs except for news broadcasts; about 20 private radio stations; transmissions of international broadcasters are available (2007)

Internet country code: .ng

Internet hosts:
> 1,234 (2012)
> Country comparison to the world: 169

Internet users:
> 43.989 million (2009)
> Country comparison to the world: 9

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
MTN	Y
Etisalat	Y

Power   **Plug Type(s)**
230v/50 Hz   D / G

Rwanda

Telephones - main lines in use:

44,400 (2012)

Country comparison to the world: 166

Telephones - mobile cellular:

5.69 million (2012)

Country comparison to the world: 104

Telephone system:

General assessment: small, inadequate telephone system primarily serves business, education, and government

Domestic: the capital, Kigali, is connected to the centers of the provinces by microwave radio relay and, recently, by cellular telephone service; much of the network depends on wire and HF radiotelephone; combined fixed-line and mobile-cellular telephone density has increased and now exceeds 40 telephones per 100 persons

International: country code - 250; international connections employ microwave radio relay to neighboring countries and satellite communications to more distant countries; satellite earth stations - 1 Intelsat (Indian Ocean) in Kigali (includes telex and telefax service) (2010)

Broadcast media: Government owns and operates the only TV station; government-owned and operated Radio Rwanda has a national reach; 9 private radio stations; transmissions of multiple international broadcasters are available (2007)

Internet country code: .rw

Internet hosts:

1,447 (2012)

Country comparison to the world: 168

Internet users:

450,000 (2009)

Country comparison to the world: 115

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Tigo Rwanda	**Y**
Airtel	**Y**

Power   **Plug Type(s)**

230v/50 Hz   C / J

Sao Tome and Principe

Telephones - main lines in use:

8,000 (2012)

Country comparison to the world: 202

Telephones - mobile cellular:

122,000 (2012)

Country comparison to the world: 190

Telephone system:

General assessment: local telephone network of adequate quality with most lines connected to digital switches

Domestic: combined fixed-line and mobile-cellular teledensity roughly 65 telephones per 100 persons

International: country code - 239; satellite earth station - 1 Intelsat (Atlantic Ocean) (2010)

Broadcast media: 1 government-owned TV station; 1 government-owned radio station; 3 independent local radio stations authorized in 2005 with 2 operating at the end of 2006; transmissions of multiple international broadcasters are available (2007)

Internet country code: .st

Internet hosts:

1,678 (2012)

Country comparison to the world: 165

Internet users:

26,700 (2009)

Country comparison to the world: 180

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Companhia Santomense	Y

Power   **Plug Type(s)**

230v/50 Hz   C / F

Senegal

Telephones - main lines in use:

> 338,200 (2012)
> Country comparison to the world: 110

Telephones - mobile cellular:

> 11.47 million (2012)
> Country comparison to the world: 73

Telephone system:

> **General assessment**: good system with microwave radio relay, coaxial cable and fiber-optic cable in trunk system
> **Domestic**: above-average urban system with a fiber-optic network; nearly two-thirds of all fixed-line connections are in Dakar where a call-center industry is emerging; expansion of fixed-line services in rural areas needed; mobile-cellular service is expanding rapidly
> **International**: country code - 221; the SAT-3/WASC fiber-optic cable provides connectivity to Europe and Asia while Atlantis-2 provides connectivity to South America; satellite earth station - 1 Intelsat (Atlantic Ocean) (2010)

Broadcast media: state-run Radiodiffusion Television Senegalaise (RTS) operates 2 TV stations; a few private TV subscription channels rebroadcast foreign channels without providing any local news or programs; RTS operates a national radio network and a number of regional FM stations; many community and private-broadcast radio stations are available; transmissions of at least 2 international broadcasters are accessible on FM in Dakar (2007)

Internet country code: .sn

Internet hosts:

> 237 (2012)
> Country comparison to the world: 197

Internet users:

> 1.818 million (2009)
> Country comparison to the world: 74

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Sentel	Y
Sonatel (Orange)	Y

Power   **Plug Type(s)**
230v/50 Hz   C / D / E / K

Seychelles

Telephones - main lines in use:
>28,900 (2012)
>Country comparison to the world: 176

Telephones - mobile cellular:
>138,300 (2012)
>Country comparison to the world: 185

Telephone system:
>**General assessment**: effective system
>**Domestic**: combined fixed-line and mobile-cellular teledensity exceeds 170 telephones per 100 persons; radiotelephone communications between islands in the archipelago
>**International**: country code - 248; direct radiotelephone communications with adjacent island countries and African coastal countries; satellite earth station - 1 Intelsat (Indian Ocean) (2011)

Broadcast media: The government operates the only terrestrial TV station, which provides local programming and airs broadcasts from international services; multi-channel cable and satellite TV are available; the government operates 1 AM and 1 FM radio station; transmissions of 2 international broadcasters are accessible in Victoria (2007)

Internet country code: .sc

Internet hosts:
>247 (2012)
>Country comparison to the world: 195

 Internet users:
>32,000 (2008)
>Country comparison to the world: 176

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Airtel	Y

Power	Plug Type(s)
240v/50 Hz	G

Sierra Leone

Telephones - main lines in use:

18,000 (2012)

Country comparison to the world: 189

Telephones - mobile cellular:

2.21 million (2012)

Country comparison to the world: 143

Telephone system:

General assessment: marginal telephone service with poor infrastructure

Domestic: the national microwave radio relay trunk system connects Freetown to Bo and Kenema; while mobile-cellular service is growing rapidly from a small base, service area coverage remains limited

International: country code - 232; satellite earth station - 1 Intelsat (Atlantic Ocean) (2009)

Broadcast media: 1 government-owned TV station; 1 private TV station began operating in 2005; a pay-TV service began operations in late 2007; 1 government-owned national radio station; about two dozen private radio stations primarily clustered in major cities; transmissions of several international broadcasters are available (2007)

Internet country code: .sl

Internet hosts:

282 (2012)

Country comparison to the world: 191

Internet users:

14,900 (2009)

Country comparison to the world: 195

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Africell-Lintel	Y
Comium	N

Power	Plug Type(s)
230v/50 Hz	D / G

Somalia

Telephones - main lines in use:
> 100,000 (2012)
> Country comparison to the world: 145

Telephones - mobile cellular:
> 658,000 (2012)
> Country comparison to the world: 162

Telephone system:
> **General assessment**: the public telecommunications system was almost completely destroyed or dismantled during the civil war; private companies offer limited local fixed-line service and private wireless companies offer service in most major cities while charging the lowest international rates on the continent
> **Domestic**: local cellular telephone systems have been established in Mogadishu and in several other population centers with one company beginning to provide 3G services in late 2012
> **International**: country code - 252; Mogadishu is a landing point for the EASSy fiber-optic submarine cable system linking East Africa with Europe and North America (2010)

Broadcast media: 2 private TV stations rebroadcast Al-Jazeera and CNN; Somaliland has 1 government-operated TV station and Puntland has 1 private TV station; the transitional government operates Radio Mogadishu; 1 SW and roughly 10 private FM radio stations broadcast in Mogadishu; several radio stations operate in central and southern regions; Somaliland has 1 government-operated radio station; Puntland has roughly a half dozen private radio stations; transmissions of at least 2 international broadcasters are available (2007)

Internet country code: .so

Internet hosts:
> 186 (2012)
> Country comparison to the world: 202

Internet users:
> 106,000 (2009)
> Country comparison to the world: 155

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Hormuud Telecom	**N**

Power   **Plug Type(s)**
220v/50 Hz   C

South Africa

Telephones - main lines in use:
> 4.03 million (2012)
> Country comparison to the world: 42

Telephones - mobile cellular:
> 68.4 million (2012)
> Country comparison to the world: 19

Telephone system:
> **General assessment**: the system is the best developed and most modern in Africa
> **Domestic**: combined fixed-line and mobile-cellular teledensity is roughly 140 telephones per 100 persons; consists of carrier-equipped open-wire lines, coaxial cables, microwave radio relay links, fiber-optic cable, radiotelephone communication stations, and wireless local loops; key centers are Bloemfontein, Cape Town, Durban, Johannesburg, Port Elizabeth, and Pretoria
> **International**: country code - 27; the SAT-3/WASC and SAFE fiber-optic submarine cable systems connect South Africa to Europe and Asia; the EASSy fiber-optic cable system connects with Europe and North America; satellite earth stations - 3 Intelsat (1 Indian Ocean and 2 Atlantic Ocean) (2011)

Broadcast media: The South African Broadcasting Corporation (SABC) operates 4 TV stations, 3 are free-to-air and 1 is pay TV; e.tv, a private station, is accessible to more than half the population; multiple subscription TV services provide a mix of local and international channels; well developed mix of public and private radio stations at the national, regional, and local levels; the SABC radio network, state-owned and controlled but nominally independent, operates 18 stations, one for each of the 11 official languages, 4 community stations, and 3 commercial stations; more than 100 community-based stations extend coverage to rural areas (2007)

Internet country code: .za

Internet hosts:
> 4.761 million (2012)
> Country comparison to the world: 23

Internet users:
> 4.42 million (2009)
> Country comparison to the world: 52

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Cell C	**Y**
Vodacom	**Y**
MTN	**Y**

Power   **Plug Type(s)**
230v/50 Hz   C / D / M / N

South Sudan

Telephones - main lines in use:

> 2,200 (2012)
>
> Country comparison to the world: 215

Telephones - mobile cellular:

> 2 million (2012)
>
> Country comparison to the world: 146

Telephone system:

> **International**: country code - 211

Broadcast media: TV is controlled by the government; several private FM stations are operational in South Sudan; some foreign radio broadcasts are available

Internet country code: .ss

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
-	-

Power   **Plug Type(s)**
230v/50 Hz   C / D

Sudan

Telephones - main lines in use:
> 425,000 (2012)
> Country comparison to the world: 101

Telephones - mobile cellular:
> 27.659 million (2012)
> Country comparison to the world: 38

Telephone system:
> **General assessment**: well-equipped system by regional standards and being upgraded; cellular communications started in 1996 and have expanded substantially with wide coverage of most major cities
> **Domestic**: consists of microwave radio relay, cable, fiber optic, radiotelephone communications, tropospheric scatter, and a domestic satellite system with 14 earth stations
> **International**: country code - 249; linked to the EASSy and FLAG fiber-optic submarine cable systems; satellite earth stations - 1 Intelsat (Atlantic Ocean), 1 Arabsat (2010)

Broadcast media: the Sudanese Government directly controls TV and radio, requiring that both media reflect government policies; TV has a permanent military censor; a private radio station is in operation (2007)

Internet country code: .sd

Internet hosts:
> 99 (2012)
> Country comparison to the world: 210

Internet users:
> 4.2 million (2008)
> Country comparison to the world: 54

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Zain	**Y**
MTN Sudan	**N**

Power	Plug Type(s)
230v/50 Hz	C / D

Swaziland

Telephones - main lines in use:

      48,600 (2012)

      Country comparison to the world: 163

Telephones - mobile cellular:

      805,000 (2012)

      Country comparison to the world: 160

Telephone system:

      General assessment: a somewhat modern but not an advanced system

      Domestic: single source for mobile-cellular service with a geographic coverage of about 90% and a rising subscribership base; combined fixed-line and mobile cellular teledensity roughly 60 telephones per 100 persons in 2011; telephone system consists of carrier-equipped, open-wire lines and low-capacity, microwave radio relay

      International: country code - 268; satellite earth station - 1 Intelsat (Atlantic Ocean) (2009)

Broadcast media: State-owned TV station; satellite dishes are able to access South African providers; state-owned radio network with 3 channels; 1 private radio station (2007)

Internet country code: .sz

Internet hosts:

      2,744 (2012)

      Country comparison to the world: 158

Internet users:

      90,100 (2009)

      Country comparison to the world: 158

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
-	-

Power   **Plug Type(s)**

230v/50 Hz   M

Tanzania

Telephones - main lines in use:
        161,100 (2011)
        Country comparison to the world: 132

Telephones - mobile cellular:
        27.22 million (2012)
        Country comparison to the world: 39

Telephone system:
        General assessment: telecommunications services are marginal; system operating below capacity and being modernized for better service; small aperture terminal (VSAT) system under construction
        Domestic: fixed-line telephone network inadequate with less than 1 connection per 100 persons; mobile-cellular service, aided by multiple providers, is increasing rapidly and in 2011 exceeded a subscriber base of 50 telephones per 100 persons; trunk service provided by open-wire, microwave radio relay, tropospheric scatter, and fiber-optic cable; some links being made digital
        International: country code - 255; landing point for the EASSy fiber-optic submarine cable system linking East Africa with Europe and North America; satellite earth stations - 2 Intelsat (1 Indian Ocean, 1 Atlantic Ocean) (2010)

Broadcast media: A state-owned TV station and multiple privately owned TV stations; state-owned national radio station supplemented by more than 40 privately owned radio stations; transmissions of several international broadcasters are available (2007)

Internet country code: .tz

Internet hosts:
        26,074 (2012)
        Country comparison to the world: 110

Internet users:
        678,000 (2009)
        Country comparison to the world: 109

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Airtel	Y
Zantel Tanzania	Y

Power   **Plug Type(s)**
230v/50 Hz   D / G

Togo

Telephones - main lines in use:

225,000 (2012)

Country comparison to the world: 126

Telephones - mobile cellular:

3.518 million (2012)

Country comparison to the world: 124

Telephone system:

General assessment: fair system based on a network of microwave radio relay routes supplemented by open-wire lines and a mobile-cellular system

Domestic: microwave radio relay and open-wire lines for conventional system; combined fixed-line and mobile-cellular teledensity roughly 50 telephones per 100 persons with mobile-cellular use predominating

International: country code - 228; satellite earth stations - 1 Intelsat (Atlantic Ocean), 1 Symphonie (2010)

Broadcast media: 2 state-owned TV stations with multiple transmission sites; 5 private TV stations broadcast locally; cable TV service is available; state-owned radio network with multiple stations; several dozen private radio stations and a few community radio stations; transmissions of multiple international broadcasters available (2007)

Internet country code: .tg

Internet hosts:

1,168 (2012)

Country comparison to the world: 170

Internet users:

356,300 (2009)

Country comparison to the world: 120

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Togo Cellulaire	Y

Power　　　**Plug Type(s)**
220v/50 Hz　　C

Tunisia

Telephones - main lines in use:
> 1.105 million (2012)
> Country comparison to the world: 71

Telephones - mobile cellular:
> 12.84 million (2012)
> Country comparison to the world: 68

Telephone system:
> **General assessment:** above the African average and continuing to be upgraded; key centers are Sfax, Sousse, Bizerte, and Tunis; telephone network is completely digitized; Internet access available throughout the country
> **Domestic**: in an effort to jumpstart expansion of the fixed-line network, the government has awarded a concession to build and operate a VSAT network with international connectivity; rural areas are served by wireless local loops; competition between the two mobile-cellular service providers has resulted in lower activation and usage charges and a strong surge in subscribership; a third mobile, fixed, and ISP operator was licensed in 2009 and began offering services in 2010; expansion of mobile-cellular services to include multimedia messaging and e-mail and Internet to mobile phone services also leading to a surge in subscribership; overall fixed-line and mobile-cellular teledensity has reached about 125 telephones per 100 persons
> **International**: country code - 216; a landing point for the SEA-ME-WE-4 submarine cable system that provides links to Europe, Middle East, and Asia; satellite earth stations - 1 Intelsat (Atlantic Ocean) and 1 Arabsat; coaxial cable and microwave radio relay to Algeria and Libya; participant in Medarabtel; 2 international gateway digital switches (2011)

Broadcast media: Broadcast media is mainly government-controlled; the state-run Tunisian Radio and Television Establishment (ERTT) operates 2 national TV networks, several national radio networks, and a number of regional radio stations; 1 TV and 3 radio stations are privately owned and report domestic news stories directly from the official Tunisian news agency; the state retains control of broadcast facilities and transmitters through L'Office National de la Telediffusion; Tunisians also have access to Egyptian, pan-Arab, and European satellite TV channels (2007)

Internet country code: .tn

Internet hosts:
> 576 (2012)
> Country comparison to the world: 180

Internet users:
> 3.5 million (2009)
> Country comparison to the world: 58

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
TUNISIANA	Y

Power   **Plug Type(s)**
230v/50 Hz   C / E

Uganda

Telephones - main lines in use:
315,000 (2012)
Country comparison to the world: 113

Telephones - mobile cellular:
16.355 million (2012)
Country comparison to the world: 58

Telephone system:
General assessment: mobile cellular service is increasing rapidly, but the number of main lines is still deficient; work underway on a national backbone information and communications technology infrastructure; international phone networks and Internet connectivity provided through satellite and VSAT applications
Domestic: intercity traffic by wire, microwave radio relay, and radiotelephone communication stations, fixed and mobile-cellular systems for short-range traffic; mobile-cellular teledensity about 50 per 100 persons in 2010
International: country code - 256; satellite earth stations - 1 Intelsat (Atlantic Ocean) and 1 Inmarsat; analog links to Kenya and Tanzania (2011)

Broadcast media: Public broadcaster, Uganda Broadcasting Corporation (UBC), operates radio and TV networks; Uganda first began licensing privately owned stations in the 1990s; by 2007 there were nearly 150 radio and 35 TV stations, mostly based in and around Kampala; transmissions of multiple international broadcasters are available in Kampala (2007)

Internet country code: .ug

Internet hosts:
32,683 (2012)
Country comparison to the world: 106

Internet users:
3.2 million (2009)
Country comparison to the world: 64

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Airtel	Y
Uganda Telecom	Y
MTN	Y
Warid Telecom	N

Power   **Plug Type(s)**
240v/50 Hz   G

Western Sahara

Telephone system:

>**General assessment**: sparse and limited system

>**Domestic**: NA

` >**International**: country code - 212; tied into Morocco's system by microwave radio relay, tropospheric scatter, and satellite; satellite earth stations - 2 Intelsat (Atlantic Ocean) linked to Rabat, Morocco (2008)

Broadcast media: Morocco's state-owned broadcaster, Radio-Television Marocaine (RTM), operates a radio service from Laayoune and relays TV service; a Polisario-backed radio station also broadcasts (2008)

Internet country code: .eh

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
-	-

Power   **Plug Type(s)**

230v/50Hz   C / F

Zambia

Telephones - main lines in use:
>82,500 (2012)
>Country comparison to the world: 149

Telephones - mobile cellular:
>10.525 million (2012)
>Country comparison to the world: 76

Telephone system:
>**General assessment**: among the best in sub-Saharan Africa
>**Domestic**: high-capacity microwave radio relay connects most larger towns and cities; several cellular telephone services in operation and network coverage is improving; domestic satellite system being installed to improve telephone service in rural areas; Internet service is widely available; very small aperture terminal (VSAT) networks are operated by private firms
>**International**: country code - 260; satellite earth stations - 2 Intelsat (1 Indian Ocean and 1 Atlantic Ocean), 3 owned by Zamtel (2010)

Broadcast media: state-owned Zambia National Broadcasting Corporation (ZNBC) operates 1 TV station and is the principal local-content provider; several private TV stations; multi-channel subscription TV services are available; ZNBC operates 3 radio networks; about 2 dozen private radio stations; relays of at least 2 international broadcasters are accessible in Lusaka and Kitwe (2007)

Internet country code: .zm

Internet hosts:
>16,571 (2012)
>Country comparison to the world: 122

Internet users:
>816,200 (2009)
>Country comparison to the world: 103

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Zamtel	**Y**

Power   **Plug Type(s)**
230v/50 Hz   C / D / G

Zimbabwe

Telephones - main lines in use:
> 301,600 (2012)
> Country comparison to the world: 117

Telephones - mobile cellular:
> 12.614 million (2012)
> Country comparison to the world: 69

Telephone system:
> **General assessment**: system was once one of the best in Africa, but now suffers from poor maintenance
> **Domestic**: consists of microwave radio relay links, open-wire lines, radiotelephone communication stations, fixed wireless local loop installations, and a substantial mobile-cellular network; Internet connection is available in Harare and planned for all major towns and for some of the smaller ones
> **International**: country code - 263; satellite earth stations - 2 Intelsat; 2 international digital gateway exchanges (in Harare and Gweru) (2010)

Broadcast media: Government owns all local radio and TV stations; foreign shortwave broadcasts and satellite TV are available to those who can afford antennas and receivers; in rural areas, access to TV broadcasts is extremely limited (2007)

Internet country code: .zw

Internet hosts:
> 30,615 (2012)
> Country comparison to the world: 108

Internet users:
> 1.423 million (2009)
> Country comparison to the world: 82

Support for USAFRICOM GSM devices (Blackberries and Laptops):

Providers	Data
Net One	**N**
Telecel	**Y**

Power	Plug Type(s)
240v/50 Hz	D / G

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Table 1 – Plug, Socket & Voltage by Country

Country / state / territory	Single-phase voltage (volts)	Frequency (hertz)	Plug type
Algeria	230 V	50 Hz	C / F
Angola	220 V	50 Hz	C
Benin	220 V	50 Hz	C / E
Botswana	230 V	50 Hz	D / G
Burkina Faso	220 V	50 Hz	C / E
Burundi	220 V	50 Hz	C / E
Cameroon	220 V	50 Hz	C / E
Cape Verde	230 V	50 Hz	C / F
Central African Republic	220 V	50 Hz	C / E
Chad	220 V	50 Hz	C / D / E / F
Comoros	220 V	50 Hz	C / E
Congo, Democratic Republic of	220 V	50 Hz	C / D / E
Congo, Republic of	230 V	50 Hz	C / E
Côte d'Ivoire (Ivory Coast)	220 V	50 Hz	C / E
Djibouti	220 V	50 Hz	C / E
Equatorial Guinea	220 V	50 Hz	C / E
Eritrea	230 V	50 Hz	C / L
Ethiopia	220 V	50 Hz	C / F
Gabon (Gabonese Republic)	220 V	50 Hz	C
Gambia	230 V	50 Hz	G
Ghana	230 V	50 Hz	D / G
Guinea	220 V	50 Hz	C / F / K
Guinea-Bissau	220 V	50 Hz	C
Kenya	240 V	50 Hz	G
Lesotho	220 V	50 Hz	M
Liberia	120 V	60 Hz	A / B
Libya	230 V	50 Hz	C / L
Madagascar	220 V	50 Hz	C / E
Malawi	230 V	50 Hz	G
Mali	220 V	50 Hz	C / E
Mauritania	220 V	50 Hz	C
Mauritius	230 V	50 Hz	C / G
Morocco	220 V	50 Hz	C / E
Mozambique	220 V	50 Hz	C / F / M
Namibia	220 V	50 Hz	D / M
Niger	220 V	50 Hz	C / D / E / F
Nigeria	230 V	50 Hz	D / G
Rwanda	230 V	50 Hz	C / J
São Tomé and Príncipe	230 V	50 Hz	C / F
Senegal	230 V	50 Hz	C / D / E / K
Seychelles	240 V	50 Hz	G
Sierra Leone	230 V	50 Hz	D / G
Somalia	220 V	50 Hz	C
Somaliland	220 V	50 Hz	C
South Africa	230 V	50 Hz	C / D / M / N
South Sudan	230 V	50 Hz	C / D
Sudan	230 V	50 Hz	C / D
Swaziland	230 V	50 Hz	M
Tanzania	230 V	50 Hz	D / G
Togo	220 V	50 Hz	C
Tunisia	230 V	50 Hz	C / E
Uganda	240 V	50 Hz	G
Western Sahara	230 V	50 Hz	C / F
Zambia	230 V	50 Hz	C / D / G
Zimbabwe	240 V	50 Hz	D / G

Table 2 – Dialing and Internet Codes

Table 2a – By Country

Country	Internet Code	Dialing Code
Algeria	DZ	213
Angola	AO	244
Benin	BJ	229
Botswana	BW	267
Burkina Faso	BF	226
Burundi	BI	257
Cameroon	CM	237
Cape Verde	CV	238
Central African Republic	CF	236
Chad	TD	235
Comoros	KM	269
Congo, Democratic Republic of	CD	243
Congo, Republic of	CG	242
Djibouti	DJ	253
Equatorial Guinea	GQ	240
Eritrea	ER	291
Ethiopia	ET	251
Gabon	GA	241
Gambia	GM	220
Ghana	GH	233
Guinea	GN	224
Guinea-Bissau	GW	245
Ivory Coast	CI	225
Kenya	KE	254
Lesotho	LS	266
Liberia	LR	231
Libya	LY	218
Madagascar	MG	261
Malawi	MW	265
Mali	ML	223
Mauritania	MR	222
Mauritius	MU	230
Morocco	MA	212
Mozambique	MZ	258
Namibia	NA	264
Niger	NE	227
Nigeria	NG	234
Rwanda	RW	250
Sao Tome and Principe	ST	239
Senegal	SN	221
Seychelles	SC	248
Sierra Leone	SL	232
Somalia	SO	252
South Africa	ZA	27
Sudan	SD	249
Swaziland	SZ	268
Tanzania	TZ	255
Togo	TG	228
Tunisia	TN	216
Uganda	UG	256
Western Sahara	EH	212
Zambia	ZM	260
Zimbabwe	ZW	263

Table 2b – By Internet Code

Country	Internet Code	Dialing Code
Angola	AO	244
Burkina Faso	BF	226
Burundi	BI	257
Benin	BJ	229
Botswana	BW	267
Congo, Democratic Republic of	CD	243
Central African Republic	CF	236
Congo, Republic of	CG	242
Ivory Coast	CI	225
Cameroon	CM	237
Cape Verde	CV	238
Djibouti	DJ	253
Algeria	DZ	213
Western Sahara	EH	212
Eritrea	ER	291
Ethiopia	ET	251
Gabon	GA	241
Ghana	GH	233
Gambia	GM	220
Guinea	GN	224
Equatorial Guinea	GQ	240
Guinea-Bissau	GW	245
Kenya	KE	254
Comoros	KM	269
Liberia	LR	231
Lesotho	LS	266
Libya	LY	218
Morocco	MA	212
Madagascar	MG	261
Mali	ML	223
Mauritania	MR	222
Mauritius	MU	230
Malawi	MW	265
Mozambique	MZ	258
Namibia	NA	264
Niger	NE	227
Nigeria	NG	234
Rwanda	RW	250
Seychelles	SC	248
Sudan	SD	249
Sierra Leone	SL	232
Senegal	SN	221
Somalia	SO	252
Sao Tome and Principe	ST	239
Swaziland	SZ	268
Chad	TD	235
Togo	TG	228
Tunisia	TN	216
Tanzania	TZ	255
Uganda	UG	256
South Africa	ZA	27
Zambia	ZM	260
Zimbabwe	ZW	263

Table 2c – By Dialing Code

Country	Internet Code	Dialing Code
Western Sahara	EH	212
Morocco	MA	212
Algeria	DZ	213
Tunisia	TN	216
Libya	LY	218
Gambia	GM	220
Senegal	SN	221
Mauritania	MR	222
Mali	ML	223
Guinea	GN	224
Ivory Coast	CI	225
Burkina Faso	BF	226
Niger	NE	227
Togo	TG	228
Benin	BJ	229
Mauritius	MU	230
Liberia	LR	231
Sierra Leone	SL	232
Ghana	GH	233
Nigeria	NG	234
Chad	TD	235
Central African Republic	CF	236
Cameroon	CM	237
Cape Verde	CV	238
Sao Tome and Principe	ST	239
Equatorial Guinea	GQ	240
Gabon	GA	241
Congo, Republic of	CG	242
Congo, Democratic Republic of	CD	243
Angola	AO	244
Guinea-Bissau	GW	245
Seychelles	SC	248
Sudan	SD	249
Rwanda	RW	250
Ethiopia	ET	251
Somalia	SO	252
Djibouti	DJ	253
Kenya	KE	254
Tanzania	TZ	255
Uganda	UG	256
Burundi	BI	257
Mozambique	MZ	258
Zambia	ZM	260
Madagascar	MG	261
Zimbabwe	ZW	263
Namibia	NA	264
Malawi	MW	265
Lesotho	LS	266
Botswana	BW	267
Swaziland	SZ	268
Comoros	KM	269
South Africa	ZA	27
Eritrea	ER	291

Table 3 – Plugs and Sockets Types

Type A

Type B

Type C

Type D

Type E

Type F

Type G

Type J

Type K

Type L

Type M

Type N

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